

Gifted Education: A Look Around and a Look Ahead

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The status of programs for high ability students has not been constant over the past century. The purpose of this article is to point out that the field of gifted and talented education is entering, once again, into a period of intense change. Three questions are answered: What changes within the field herald a reconceptualization? How does the current transformation differ from previous changes? and What are the next steps for practitioners in the field?

"When one door closes another opens. But we often look so long and so regretfully upon the closed door that we do not see the one which has opened for us."
—Alexander Graham Bell

Several years ago, David Feldman (1991) proposed that a paradigm shift was occurring in the field of gifted education. The signs indicating new directions included lingering, troublesome, questions related to the identification of gifted students; increasing vitality in the field, as measured by renewed research initiatives; the emergence of a new cadre of scholars and researchers in the field; and renewed financial support for gifted education. The combined effect of the four indicators suggested that “an explosion of power and energy [was] building in the field” and “signs of positive change are in the air” (Feldman, 1991, p. 15).

The paradigm shift to which Feldman alluded may be occurring at institutions of higher learning, research centers, and at the federal level. Recent research (DeBuse & Shoemaker, 1993; Ward & Landrum, 1994) documents other changes at the *local* level. DeBuse and Shoemaker highlight an emerging collaborative role for the teacher of the gifted in Oregon, and they attribute this new role to Oregon’s Educational Act for the 21st Century. The Act contains recommendations for site-based decision making and integrative education, as well as a state mandate for gifted education. Ward and Landrum (1994) chronicle a similar shift. They suggest that collaboration between gifted education specialists and the classroom teacher is one way to “assist the teacher to meet the special needs of gifted students . . . and improve the general education program” (p.276).

It is our intention to make explicit a *set* of changes that is occurring at the *local* level including issues related to identification, programming, classroom practices, funding, and philosophy, as expressed through language or expressions. A graphic representation of these shifts is included in Figure 1. These changes constitute the inauguration of a paradigm shift in gifted education emanating from the local level.

	Traditional Paradigms	Emerging Paradigms
Identification	(1) Narrow definition of ability (IQ) --- (2) IQ cutoff -----	Expanded view of abilities and talents Multiple criteria (e.g., peer assessment, self-nomination, portfolios); Talent Portfolios for all students
Programs	(3) Students are designated “gifted” or “not gifted” -----	High-level behaviors emerge in some people, in some areas, and at certain times
Teachers	(4) One-time, fixed identification ---- (5) Gifted programs defined -----	Flexible, on-going assessment High-level learning opportunities exist on a continuum within the traditional curriculum
Classroom Practices	(6) Teachers of the gifted and talented provide direct services to identified students ----- (7) Students’ achievement level overlooked -----	Enrichment specialist also collaborates with colleagues to infuse enrichment into all levels Students’ achievement level acknowledged, curriculum compacting; personalized instruction for all
Funding	(8) Grouping that separates “gifted” from “non-gifted” -----	Grouping by interests, tasks, motivation, and styles as well as by achievement level
Expression	(9) Funding by “body count” ----- (10) “Society has much to gain from examining its most evolved members.” ----- “There is nothing so unequal as the equal treatment of unequals”	Funding by total district population “Every student is special if we provide opportunities to make that student a specialist in a specialty group.” “Giftedness emerges in the way students engage and reengage themselves with escalated learning opportunities.”

Figure 1. Evolving ideologies in gifted education.

Identification Issues

Questions regarding identification of students with high abilities have lingered in the field at the local level for at least half a century. Specifically, these questions are: “How will we define giftedness?” and “How can we ensure the identification of *all* students with abilities and talents?” These questions were answered by theorists and researchers, and Sternberg (1986), Gardner (1983), and Renzulli (1978), were among many who proposed new conceptions of giftedness and approaches to identification. The first two theorists, Sternberg and Gardner, proposed expanded theories of intelligence. Gardner proposed seven different intelligences (i.e., linguistic, logical-mathematical, spatial, musical, kinesthetic, interpersonal, intrapersonal), and Sternberg proposed three (i.e., componential, contextual, experiential). Inclusive views of intelligence are helping to initiate two changes at the local level. First, extended definitions of talents and abilities are being adopted locally. While the IQ score is still a predominant feature in identification plans, 80% of states use definitions that include creativity, approximately 70% use definitions that include artistic abilities, and slightly

more than half the states use definitions that include leadership capabilities (Coleman & Gallagher, 1992; Passow & Rudnitski, 1993). The second change is that multiple criteria and pathways are being used to identify the talents and abilities of students. These multiple assessments include, for example, peer assessments, self-nomination, portfolios, product assessments, and parent and teacher nominations. Many districts have reconfigured their identification procedures to reflect the multiplicity of talents and diverse pathways leading to identification.

In our own work (Renzulli, 1978, 1986), it has been argued that giftedness is not a fixed ability, but rather a set of behaviors—above average ability, task commitment and creativity—that is brought to bear on a performance area. Thus conceived, giftedness is not necessarily an inborn and enduring trait as previously thought, but one that emerges in some people, in some areas, and under certain circumstances. This definition is a departure from traditional definitions which were based on the singular and ubiquitous IQ score. Over the years, however, this behavioral definition of giftedness has gained acceptance and is precipitating two additional changes at the local level. The first change is a shift away from labeling students as “gifted” or “not gifted.” When students are no longer labeled, large numbers of students (and, in some cases, *all* students) can be provided with wide ranges of opportunities, resources, and encouragement. The most important part of this approach is that we examine the ways in which students respond to these experiences in order to make decisions about subsequent advanced-level opportunities. Even a highly positive response to a special opportunity does not result in the label “gifted.” It simply points out the need for an ever escalating level of services designed to encourage gifted behaviors in young people.

Practitioners are recognizing that giftedness in young people is a set of behaviors that is brought to bear on complex problems requiring an insightful, logical, or creative solution. With this transition in mind, educators at the local level (Baldwin, 1994; Coleman, 1994; Taradash, 1994) are relinquishing identification procedures conducted on a one-time, fixed basis. Instead, they are identifying targeted behaviors on an ongoing basis when students exhibit above average ability, task commitment, and creativity in performance areas. Thus, on-going identification is the second change implemented by practitioners as a result of Renzulli’s conception of giftedness. An example provides clarification of these two changes in identification practices.

Harlan is a fifteen-year-old young man. He is soft-spoken, sits in the back of many of his classes and rarely participates in class discussions. Although Harlan is known to be a “solid” student in many subject areas, he has never been nominated as a candidate for special services. During his sophomore year, his science teacher required a project on a self-selected topic related to weather. On a subsequent afternoon, Harlan approached his science teacher with three very thick folders. One of the folders contained Harlan’s weather journal that included daily entries for the past four years. He explained that he had been “keeping his own weather journal since he was in seventh grade.” The other two folders contained information related to every hurricane to touch the east coast in the last two years. Harlan showed his science teacher plots of each storm from the time each was designated a tropical depression until it was downgraded to

tropical storm. Additionally, he shared detailed reports on each storm including position, wind velocity, size, intensity, direction, and speed. Depending upon the severity of the storm, Harlan made his annotations at six hour intervals or as frequently as every 30 minutes. "I'd like to focus on intense weather phenomenon in my science project on weather," said Harlan to his science teacher. "It's harder to predict these meteorological phenomenon, but it's more interesting."

Harlan was not labeled as a "gifted child" by the school district in a one-time, fixed assessment. Instead, practitioners had been provided with training to identify behaviors that indicated heightened engagement in an interest area. As a result, Harlan's intense interest in violent weather phenomena was identified by his science teacher, and services were provided to him at the most opportune time to nurture his interest and escalate his level of creative productivity.

To summarize, four changes in identification practices are occurring at the local level. First, the definition of giftedness has expanded to include a wider spectrum of abilities and talents. Second, a wider variety of identification mechanisms are being used to reveal student abilities and talents, and multiple pathways are being designed and implemented to ensure that all children, including those from all cultural and economic groups, have an opportunity to receive special services. Third, giftedness is now recognized by many as a complex set of behaviors which occur in certain people, at certain times, and under certain circumstances. Finally and consequently, identification practices have shifted from a one-time fixed pronouncement to an ongoing, flexible assessment that occurs within the context of learning.

Feldman argued that the problems associated with the lack of appropriate identification measures were puzzling and could not be "resolved within currently available frameworks" (p. 15). Although identification issues continue to be debated in the most healthy tradition of scientific research, solutions are available, are being applied by local personnel, and are being assimilated by school districts. The four changes discussed above constitute significant progress at the local level in overcoming the inequities that result from an over reliance on standardized test measures. Standardized measures have been augmented with performance indicators (Renzulli, Smith, White, Callahan, & Hartman, 1976; Richert, Alvino, & McDonald, 1982). Additionally, methods and perspectives offered by Bernal, (1978), Callahan and McIntire (1994), Frasier (1989), Kirschenbaum (1988), Ruiz (1989), and Tonemah (1987) are being used to better identify culturally diverse students with talents and abilities. Finally, assessments are available to identify precocious preschool and kindergarten students (Robinson, 1987; Roedell, Jackson, & Robinson, 1980; Sandal, McCallister, & Nash, 1993).

The Status of Programs

The local issue that has prompted many to recognize that a paradigm shift is occurring at the local level is the reduction and elimination of programs for students with high abilities. Programs for the gifted at the local level are being "trimmed and gutted" (Nordheimer, 1992) in many states, especially those characterized with poor economic

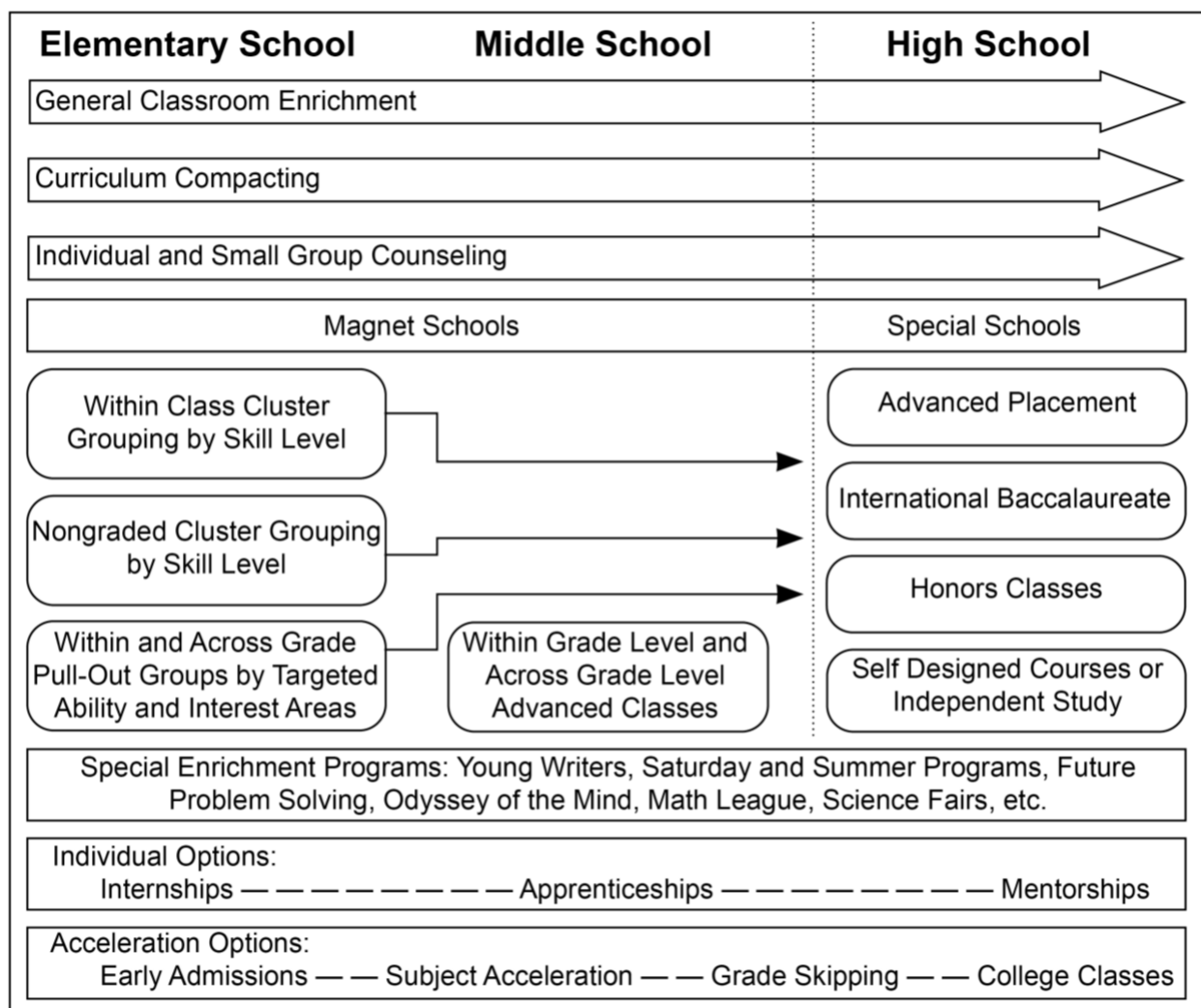
health. This often divisive change has been chronicled by journalists and researchers (Feldhusen, 1991; Kelly, 1991; Marcus, 1992; Purcell, 1992, 1993; Radin, 1991; US Department of Education, 1993). Purcell (1993) reported that as many as one-third of the programs in states without mandates and in poor economic health have been jeopardized in some way, either through elimination, reduction of personnel or program components, or being targeted as educational services that are no longer necessary.

Responses to the Reduction

New Plans and the Reorientation of Service Delivery Methods

Paradoxically, the reduction and elimination of program services is not without long-term benefits. Confrontation with a significant and long-standing problem is a precondition for the emergence of a new orientation. Specifically, concentration focused on the reduction and elimination of programs for the gifted, as well as other bleak conditions for all learners (Applebee, Langer, & Mullis, 1989; Gardner, 1991; Goodlad, 1984; Jones, Mullis, Raizen, Weiss, & Weston, 1992; Mullis, Campbell, & Fanstrup, 1993; Mullis, Dossey, Owen, & Phillips, 1993;Sizer, 1992; Stevenson, Chen, & Lee, 1993), has provided a rationale for reconceptualizing traditional gifted service delivery methods. Whereas the 1980s and early 1990s were characterized as years when separate, “pull-out” programs for high ability learners were the norm, the late 1990s may be remembered as a time when many gifted program services were assimilated into the traditional curriculum as a “continuum of special services” available for *all* students (see Figure 2). Thus conceived, gifted programs are no longer the only focus of attention; high-level learning opportunities that exist on a continuum within the traditional curriculum for all students are an alternative focus.

School officials in several cities and states, sensing that traditional service delivery methods are ceasing to function adequately, are already implementing high-level learning opportunities for all students. In New York City, for example, a variety of schools, including school-based managed systems, Chapter I schools, and schools designed to service students with learning disabilities, are incorporating high-level learning activities into the regular curriculum (Fernandez, 1993; Slatin, 1995). Enrichment clusters, non-graded groups of students who share common interests, have been formed and meet during specified blocks of time during the school day. Interested students and teachers are bound together in the production of a service or product related to their common interest. For example, in one school that serves a culturally diverse population, one enrichment cluster that called itself the Hispanic Cultural Awareness Association decided to become translators for community members who spoke little English. Additionally, they produced a documentary chronicling the changes that occurred in the community as the result of the immigration of ethnic groups. In another school, the Environmental Trust Coalition identified an endangered animal that was indigenous to the area and initiated a public awareness campaign to save it and its habitat. These real-world conceptions of productivity are exemplars of high-level learning activities (Renzulli, 1994). They provide participants with escalating opportunities to contribute in their area of specialization, thereby nurturing the talents of all involved.



From Renzulli, J. S. (1994). *Schools are places for talent development: A practical plan for total school development*. Mansfield Center, CT: Creative Learning Press.

Figure 2. The continuum of special services.

The Emerging Role of the Enrichment Specialist

The assimilation of high-end learning opportunities into the regular curriculum is creating a new school context which, in turn, requires a new and expanded role for local personnel involved with the delivery of the continuum of services. Traditionally, personnel associated with gifted programs assumed the role of teacher of the gifted or coordinator of gifted services. This person spent a majority of his or her time with pull-out groups of students, usually providing whole group instruction in thinking activities. In some cases, teachers of the gifted visited classrooms on a rotating basis to extend the regular curriculum.

The emerging role for the teacher of the gifted is the enrichment specialist, and this expanded role includes not only direct services to students, but also resource and leadership responsibilities. Direct services to students include face-to-face activities with

students and working with other persons and organizations to facilitate direct services. Specific activities include, for example, individual and small group teaching and mentoring, direct coaching of students' self-selected independent investigations, counseling and referral of students to other service agencies, monitoring individual student progress, providing teachers with materials to use with a specific group or individual, coordinating mentorships, arranging for students to attend appropriate summer programs, and organizing enrichment programs such as Junior Great Books, Future Problem Solving, Odyssey of the Mind, or Artifact Box.

Enrichment specialists' new resource and leadership responsibilities include, for example, peer coaching and coordination and implementation of staff development activities, demonstration teaching, working with enrichment teams, public relations, program evaluation and monitoring, reviewing and recommending curriculum materials, serving as a liaison between the state department and the local district regarding legal issues, serving as a liaison between the school system and parents, and communications (e.g., newsletters, briefings, updates). In districts where programs for the gifted remain a high-level learning option, other specific activities of the enrichment specialist include organizing the identification and selection of students for inclusion in the program for high ability students, and conducting orientation meetings with parents of students identified for the program.

The addition of new leadership responsibilities requires that the enrichment specialist's time be reapportioned. Whereas traditional models allowed teachers of the gifted to devote 100% of their time to direct services to students, enrichment specialists will divide their time between leadership responsibilities and direct services to students. In districts where this transition is already underway, enrichment specialists report that they spend approximately 60% of their time providing direct services to all students and about 40% of their time to resource and leadership responsibilities.

Use of Different Instructional Strategies by Classroom Practitioners

Spurred by the recent movement away from special programs for the gifted and toward heterogeneity, today's classrooms reflect much greater diversity. To accommodate this diversity of ability levels, increasing numbers of practitioners at the local level are being asked to modify instructional practices to provide challenging learning activities for all students, including those with high abilities. Two instructional strategies that are being used are curriculum compacting and flexible grouping.

Until recent years, students' prior knowledge about the content of a curriculum unit was seldom considered before the instruction process began. Curriculum approaches such as curriculum compacting (Association for Supervision and Curriculum Development, 1994; Reis, Burns & Renzulli, 1992; Renzulli & Smith, 1978; Weinbrenner, 1993), curriculum telescoping (Tannenbaum, 1986), and compression of content (VanTassel-Baska, 1985) have provided teachers with plans to modify curriculum for those students who already know the objectives of a given unit of instruction or who can master the material in a fraction of the time allotted. One plan, curriculum compacting, has proven easy to implement and effective in recent research.

When curriculum compacting was implemented by a national sample of teachers, it was discovered that 95% of teachers were able to implement the process, and they were able to eliminate as much as 40–50% of traditional classroom material for high ability students in grades 2–6 in one or more of the following areas: mathematics, language arts, science, and social studies (Reis et al., 1993). Teachers in the study were able to provide students with a variety of enrichment or acceleration options during the time that was freed through compacting.

The second classroom practice that is being used increasingly at the local level is flexible grouping. Flexible grouping practices differ from traditional grouping strategies in two ways: the criteria used to arrange students into groups and the frequency with which students are assessed. Traditional grouping arrangements were determined for the most part by students' ability levels, and this practice resulted frequently in distinct grouping patterns that separated the "gifted" from the "not gifted." Currently, a wider array of other criteria are available and are being used by practitioners to organize students, including student interest, motivation, learning styles and preferences, as well as achievement levels. Additionally, students are being assessed more frequently, which results in regular opportunities for group jumping, a process that advances students to achievement levels that provide optimal challenge.

To summarize, the movement away from special programs for the gifted in some areas of the country and toward heterogeneity has caused practitioners and officials to reexamine classroom practices. Faced with widening ranges of diversity in classrooms, large numbers of teachers recognize the need to modify curriculum and grouping practices to provide all students with opportunities for high-level learning.

New Funding Formulas

The thinking and modification that is taking place with respect to classroom practices and the role of the enrichment specialists is also occurring in state-level funding plans. State funding methods for gifted and talented programs at the local level are diverse, intricate, and complex (Coleman & Gallagher, 1992; Passow & Rudnitski, 1993). In spite of their diversity, however, a common element among most funding formulas, something called the "body count" approach, reimburses local districts according to the number of identified students served. The assimilation of gifted program services and the provision of enrichment opportunities for all students, however, is causing a welcome reconsideration of this traditional, and often inequitable, approach to reimbursement. An example provides clarification.

*Concerned over the decline of programs in the state and concomitant high-end learning opportunities for students, the Commissioner of Education in Rhode Island, the state Gifted and Talented Director, the state Board of Regents, and parent advocates for gifted education collaborated to reconfigure state funding and provide funding for enriched learning opportunities for all students. A plan

* For information about this initiative, contact: Dr. John Wilkinson, Rhode Island Department of Education, 22 Hayes Street, Providence, Rhode Island. Phone: (401) 277-3037, Fax: (401) 277-3080

was adopted (Renzulli, 1994) and a bill was subsequently submitted to the legislature requesting an appropriation of \$200.00 per student enrolled in Rhode Island's public system of education. The funds will be used by local officials to provide (1) the services of Enrichment Specialists, (2) staff development, (3) materials, equipment and supplies, and (4) travel for students and staff.

The above example is a departure from traditional reimbursement practices associated with programs for high ability students because it is based on total school enrollment. It is not that different, however, from budgeting practices for the allocation of other forms of state aid. Most important, it is a bold initiative that may provide Rhode Island residents and others who initiate similar plans with an equitable, cost-effective plan to provide challenging learning opportunities for all students.

New Language

The evolutionary shift toward talent development represents a new philosophy and, by necessity, requires a different language. This new language focuses on the development of certain behaviors in young people and the high-level learning opportunities that will bring to light larger numbers of students, across cultures, who exhibit above average ability, task commitment, and creativity. The expressions on the right-hand side of Figure 1 are consistent with the overall intent to label services rather than students.

The Anatomy and Significance of the Current Paradigm Shift

Do the reconceptualization of giftedness, reorientation of service delivery plans, curriculum modifications plans, and rethinking related to funding formulas, and new language described above warrant consideration as a paradigm shift for the field of gifted education at the local level? Or does this series of actions illuminate merely human confusion about events, methods and techniques? The answer to this question lies in an examination of the nature of the responses, by local practitioners, to the changing context of gifted education.

Characteristics of responses that inaugurate paradigm shifts include expressions of discontent over existing practices, a loosening of stereotypes associated with past practices, the articulation and emergence of plans that accommodate new world views, and a willingness to try new techniques and methods (Kuhn, 1970). It seems reasonable to conclude that responses of local personnel described earlier in this article are, indeed, characteristic of those that precede a reorientation in a field. Expressions of discontent with respect to older models have emerged from several groups including, parents, practitioners, and education leaders, especially in those states where programs have been reduced and eliminated to the greatest extent. Discontent has resulted in the loosening of parameters that guided past practices, and this loosening has led to the construction of new plans and a willingness to try innovative techniques and methods. This willingness has been translated into a panoramic rethinking that includes new plans for service delivery, new roles for the traditional teacher of the gifted, the adoption

of differentiated instructional practices by classroom teachers, bold initiatives regarding funding formulas, and the evolution of new expressions.

If the current set of changes are, indeed, characteristic of an emerging paradigm shift emanating from the local level, is this change different from those that have preceded it? Two features of this current movement make it different from previous shifts and potentially more powerful: the critical mass of practitioners, experts and researchers who recognize that we cannot be certain about who is “gifted” and “not gifted,” and the climate of school restructuring. Current research (Bloom, 1985; Csikszentmihalyi, 1986, 1988; Gardner, 1983; Sternberg, 1986) indicates not only the need to expand definitions of talents and abilities, but also the need to construct opportunities for potential talents to emerge in young people. Practitioners at the local level have long recognized the difficulties involved in labeling some children “gifted” and others “not gifted.” Quite simply, experts at all levels acknowledge the weaknesses associated with traditional identification practices. Thus, a theoretical transformation is occurring within the field.

Pressure from outside the field is the second feature to distinguish the current shift from its predecessors. Spurred by countless research findings regarding the ineffectiveness of regular educational programs to prepare young people for the 21st century, parents, practitioners, administrators, and local and state officials are seeking strategies to restructure the way we educate our children. The current dissatisfaction with existing curricula and pedagogy may impel practitioners and parents to capitalize upon the successful, research-tested models, strategies, and techniques that heretofore were reserved only for the “gifted.”

Conclusion

The responses of practitioners and classroom teachers described in this article herald a period of intense change for the field at the local level. The changes that are currently underway may prove more powerful than previous shifts because of the forces at work both inside and outside the field of gifted education. We believe the combined effect of all the forces will result in the infusion of many high-level learning opportunities into the regular curriculum for all students, including those with high abilities. These changes are opportunities to share the know-how of gifted education with other teachers and parents and, in return, learn important lessons from classroom practitioners. It is an opportunity for shared vision that can help to change the quality of students' lives, the culture and climate of our schools, and the future of our society as a whole.

Alexander Graham Bell provided us with important words of wisdom which introduced this article. He said, “When one door closes another opens. But we often look so long and so regretfully upon the closed door that we do not see the one which has opened for us.” Clearly, paradigm shifts in gifted education are occurring at all levels; some doors are closing, but others are opening for those who would look in the right directions. Will those who work at the local level continue to look regretfully at traditional views of intelligence, models of service delivery, classroom practices, funding

formulas, and the loss of programs? Or, will we look through opening doors, such as those provided by expanding views of intelligence, innovative models for service delivery, high-level instructional practices, and new funding formulas that provide learning opportunities for all students? If the ultimate aim of education is to produce a learning community, then our goal must be the talent development of all children in our schools. Plans and strategies already exist that have demonstrated effectiveness in escalating levels of student creative productivity and achievement, and these plans and strategies have been developed and refined in special programs for students with high abilities. Perhaps, then, the first, realistic step toward the goal of school improvement rests upon those who have expertise in the field of gifted education. Collaborative alliances among these stake holders, as well as parents, students, policy makers, business leaders, and government officials can lead the way toward talent development, school improvement, and our collective growth.

References

- Applebee, A. N., Langer, J. A., & Mullis, I. V. S. (1989). *Crossroads in American education*. Princeton, NJ: Educational Testing Service.
- Association for Supervision and Curriculum Development. (1995). *Gifted education in the regular classroom* [video]. Alexandria, VA: Author. (Available from Association of Supervision and Curriculum Development, 1250 N. Pitt Street, Alexandria, VA 22314).
- Baldwin, A. Y. (1994). The seven plus story: Developing hidden talent among students in socioeconomically deprived environments. *Gifted Child Quarterly*, 38(2), 80–84. <https://doi.org/10.1177/001698629403800206>
- Bernal, E. M., Jr. (1978). The identification of gifted Chicano children. In A. Y. Baldwin, G. H. Gear, & L. J. Lucito (Eds.), *Educational planning for the gifted: Overcoming cultural, geographic and socioeconomic barriers*. Reston, VA: The Council of Exceptional Children.
- Bloom, B. S. (1985). *Developing talent in young children*. New York: Ballentine.
- Callahan, C. M., & McIntire, J. A. (1994). *Identifying outstanding talent in American Indian and Alaska Native students*. Washington, DC: Office of Educational Research and Improvement. <https://files.eric.ed.gov/fulltext/ED367127.pdf>
- Coleman, L. J. (1994). Portfolio assessment: A key to identifying hidden talents and empowering teachers of young children. *Gifted Child Quarterly*, 38(2), 65–69. <https://doi.org/10.1177/001698629403800203>
- Coleman, M. R., & Gallagher, J. J. (1993). *Report on the state policies related to the identification of gifted students*. Chapel Hill, NC: Gifted Education Policy Studies Program. <https://files.eric.ed.gov/fulltext/ED344368.pdf>
- Csikszentmihalyi, M., & Robinson, R. E. (1986). Culture, time and the development of talent. In R. S. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (pp. 264–284). Cambridge, England: Cambridge University Press.
- DeBuse, M., & Shoemaker, B. J. E. (1994). The changing role of the TAG teacher: An Oregon case study. *Roeper Review*, 16(1), 58–61. <https://doi.org/10.1080/02783199309553537>
- Feldhusen, J. F. (1989). Why the public schools will continue to neglect the gifted. *Gifted Child Today*, 12(2), 55–59. <https://doi.org/10.1177/107621758901200221>

- Feldman, D. H. (1991). Has there been a paradigm shift in gifted education. *Educating Able Learners: Discovering and Nurturing Talent*, 16(4), 14–19.
- Fernandez, J. A. (1993). *Special circular #43, Early childhood education initiative*. Brooklyn, NY: New York City Board of Education.
- Frasier, M. M. (1989). Identification of gifted black students: Developing new perspectives. In C. J. Maker & S. W. Schiever (Eds.), *Critical issues in gifted education: Defensible programs for cultural and ethnic minorities* (Vol. II, pp. 213–225). Austin, TX: Pro-Ed.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1991). *The unschooled mind: How children think and how schools should teach*. New York: Basic Books.
- Goodlad, J. I. (1984). *A place called school: Prospects for the future*. New York: McGraw Hill.
- Jones, R. L., Mullis, V. S., Raizen, S. A., Weiss, I. R., & Weston, E. A. (1992). *The 1990 science report card*. Princeton, NJ: Educational Testing Service.
- Kelly, D. (1991, October 23). Programs for the gifted: Equitable or elitist? *USA Today*, p. 18.
- Kirschenbaum, R. J. (1988). Methods for identifying gifted and talented American Indian students. *Journal for the Education of the Gifted*, 11(3), 53–63.
<https://psycnet.apa.org/doi/10.1177/016235328801100305>
- Kuhn, T. S. (1970). *The structure of scientific revolutions* (2nd ed.). Chicago: University of Chicago Press.
- Marcus, J. (1992, February 2). Gifted programs under fire. *The Boston Sunday Globe*, pp. 35, 37.
- Mullis, V. S., Dossey, J. A., Owen, E. H., & Phillips, G. W. (1993). *The National Assessment of Educational Progress report card for the nation and the states*. Princeton, NJ: Educational Testing Service.
- Nordheimer, J. (1993, November 29). Education for the gifted, seen as luxury, faces cut-backs. *The New York Times*, pp. 1, 51.
- Passow, A. H., & Rudnitski, R. A. (1993). *State policies regarding education of the gifted as reflected in legislation and regulation* (CRS93302). Storrs: University of Connecticut, The National Research Center on the Gifted and Talented.
<https://nrcgt.uconn.edu/wp-content/uploads/sites/953/2015/04/crs93302.pdf>
- Purcell, J. H. (1992). Programs in states without a mandate: An “endangered species?”. *Roeper Review*, 15(2), 93–95. <https://doi.org/10.1080/02783199209553473>
- Purcell, J. H. (1993). *The status of programs for high ability students in a sample of twenty states and the factors that led to their retention and elimination*. Unpublished doctoral dissertation. Storrs: The University of Connecticut.
- Radin, C. A. (1991, September 30). Gifted students face test of indifference. *The Boston Globe*, pp. 1, 14.
- Reis, S. M., Burns, D. E., & Renzulli, J. S. (1992). *Curriculum compacting: The complete guide to modifying the regular curriculum for high ability students*. Mansfield Center, CT: Creative Learning Press.
- Renzulli, J. S. (1978). What makes giftedness? Re-examining a definition. *Phi Delta Kappan*, 60(3), 180–184, 261. <https://www.jstor.org/stable/20299281>

- Renzulli, J. S. (1986). The three-ring conception of giftedness: A developmental model for creative productivity. In R. J. Sternberg (Eds.), *Conceptions of giftedness* (pp. 53–92). Cambridge, England: Cambridge University Press.
- Renzulli, J. S. (1994). *Schools for talent development: A practical plan for total school improvement*. Mansfield Center, CT: Creative Learning Press.
- Renzulli, J. S., & Smith, L. (1978). *The compactor*. Mansfield Center, CT: Creative Learning Press.
- Renzulli, J. S., Smith, L. H., White, A. J., Callahan, C. M., & Hartman, R. K. (1976). *Scales for Rating the Behavioral Characteristics of Superior Students*. Mansfield Center, CT: Creative Learning Press.
- Richert, E. S., Alvino, J., & McDonnell, R. (1982). *The national report on identification: Assessment and recommendations for comprehensive identification of gifted and talented youth*. Sewell, NJ: Educational Information and Resource Center for the US Department of Education.
- Robinson, N. M. (1987). The early development of precocity. *Gifted Child Quarterly*, 31(4), 161–164. <https://psycnet.apa.org/doi/10.1177/001698628703100406>
- Roedell, W., Jackson, N. E., & Robinson, H. B. (1980). *Gifted young children*. New York: Teachers College Press.
- Ruiz, R. (1989). Considerations in the education of gifted Hispanic students. In C. J. Maker & S. W. Schiever (Eds.), *Critical issues in gifted education: Defensible programs for cultural and ethnic minorities* (Vol. II, pp. 60–65). Austin, TX: Pro-Ed.
- Sandel, A., McCallister, C., & Nash, W. (1993). Child search and screening activities for pre-school gifted children. *Roeper Review*, 16(2), 98–102. <https://psycnet.apa.org/doi/10.1080/02783199309553549>
- Sizer, T. (1992). *Horace's compromise: The dilemma of the American school*. Boston: Houghton Mifflin.
- Slatin, B. E. (1995). *The emerging role of the principal in restructuring for gifted education*. Unpublished doctoral dissertation. New York, Fordham University.
- Sternberg, R. S. (1986). A triarchic theory of intellectual giftedness. In R. S. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (pp. 223–243). Cambridge, England: Cambridge University Press.
- Stevenson, H. W., Chen, C., & Lee, S.-Y. (1993). Mathematics achievement of Chinese, Japanese and American children: Ten years later. *Science*, 259(5091), 53–58. <https://doi.org/10.1126/science.8418494>
- Tannenbaum, A. J. (1986). The enrichment matrix model. In J. S. Renzulli (Ed.), *Systems and models for developing programs for the gifted and talented* (pp. 391–428). Mansfield Center, CT: Creative Learning Press.
- Taradash, G. (1994). Extending educational opportunities for middle school gifted students. *Gifted Child Quarterly*, 38(2), 89–94. <https://psycnet.apa.org/doi/10.1177/001698629403800208>
- Tonemah, S. (1987). Assessing American Indian gifted and talented students' abilities. *Journal for the Education of the Gifted*, 10(3), 181–194.
- U.S. Department of Education (1993). *National excellence: A case for developing America's talents*. Washington, DC: U.S. Government Printing Office. <https://files.eric.ed.gov/fulltext/ED359743.pdf>

- VanTassel-Baska, J. (1986). Effective curriculum and instructional models for talented students. *Gifted Child Quarterly*, 30(4), 164–169.
<https://doi.org/10.1177/001698628603000404>
- Ward, S. B., & Lundrum, M. S. (1995). Resource consultation: An alternative service delivery model for gifted education, *Roeper Review*, 16(4), 276–279.
<https://doi.org/10.1080/02783199409553597>
- Weinbrenner, S. (1992). *Teaching gifted kinds in the regular classroom*. Minneapolis, MN: Free Spirit Publishing.

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